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ABSTRACT

Text and accompanying exercises are utilized in these two learning modules to instruct nurses and nursing administrators in personnel management techniques. The first module, "How to Determine Unit Staffing Needs" by Malcolm R. MacDonald, describes a procedure for determining the number of nurses needed in a patient care unit on the basis of average daily occupancy data and estimated vacation, holiday, and sick day adjustments. The second module, "Job Related Training Program (Cross Training)" by Helen Misko, examines how to identify departmental in-service training needs by evaluating staff competencies with respect to established departmental functions. Both modules describe techniques and procedures, provide sequential reinforcement exercises with immediate feedback on responses, and conclude with a post-test and accompanying answer key. The modules require 30 minutes each to complete. (JP)

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HEALTH INSTRUCTION PACKAGES:

Nursing -- Administrative Issues

Modules prepared by:

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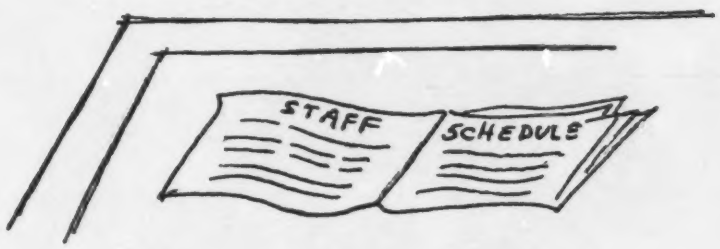
HOW TO DETERMINE UNIT STAFFING NEEDS

by

Malcolm R. MacDonald



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TITLE OF PACKAGE:	How to Determine Unit Staffing Needs
AUTHOR:	Malcolm R. MacDonald
INSTITUTION:	Bakersfield, Calif. College
INTENDED STUDENTS:	Nurses, hospital administrators, or health-science students
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	None
REVISED:	June 1, 1977

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INTRODUCTION

Are you a nurse who is responsible for staffing? Frustrated with busy-work? Have you asked yourself, "Why doesn't Administration understand? What do they mean---justify your staffing need? Our staffing need is so obvious?"

Don't dismay. Most nurses in management were promoted primarily because of clinical expertise, not management know-how. This learning package will equip you with a method to determine the number of nurses you need for your unit. You then will be able to provide statistics to prove your staffing need. You will be armed with facts. Watch your administration's response. Just follow the directions and complete the practice exercises. Imagine, in just 30 minutes from now you will be able to justify your staffing needs!

Overall Objective

Specifically this learning package prepares you to determine the numbers of nurses needed on a patient care unit.

Sub-Objectives

To meet this objective you will learn methods to:

1. Determine unit occupancy data
2. Calculate number of staff needed to provide for full time coverage
3. Determine the total staffing needs for a 37-bed unit
4. Relate method of determining staff need on a 37-bed unit to a unit of any capacity

In order to calculate staffing needs, required hours of nursing care and average percent occupancy must be known. The average occupancy is simply the average percentage of patients on the unit at all times. For example, the average occupancy of a 30-bed unit which has typically 25 patients is 83%. (25/30 = 83%) The required hours of nursing care is a determination of the direct nursing care given to patients throughout a 24-hour period. This determination is usually determined by the nursing administration. If you are not aware of this data ask for it from your Director of Nursing. She'll already be impressed---just for you requesting this information. Wait until she learns what you do with it!

Practice Question #1A

What is the average occupancy of a 40-bed unit that has an average census of 30?

(Turn the page for the correct answer)

Feedback Practice Question #1A

The daily average occupancy is 75% (30/40 = 75%)

If you have difficulty determining average occupancy, complete practice question #1B. Otherwise, proceed to practice exercise 2. You're ready for the next step.

Practice Question #1B

Determine the average occupancy of a 50-bed unit that has a daily average census of 35.

(Look at bottom of page for correct answer)

Feedback Practice Question #1B

The daily average occupancy is 70% (35/50 = 70%).

Each nurse usually works a 40-hour week. Additionally, in projecting for staffing needs, consideration must be given to providing relief coverage for employees who are on vacation, holidays or using sick time. Determination of the number of additional nurses required to provide relief for such absences is calculated as follows:

10 Vacation days	x 8 hours/day	=	80 hours
10 Holidays	x 8 hours/day	=	80 hours
6 Sick days	x 8 hours/day	=	48 hours
			208 hours

One full time equivalent (F.T.E. = staff coverage 40 hrs/wk x 52 weeks) is equal to 2080 hours per year.

In our example each nurse has 208 hours/year for absences. Therefore 10% more staffing is required to provide for extra staff for vacation/holiday/sick time coverage (208/2080 = 10%).

Don't forget to include this figure in your staffing needs determination. Your staff do need vacation, holiday and sick time benefits!

Practice Question #2

Your hospital provides 12 vacation days, 8 holidays and 10 sick days yearly. Calculate the percentage of additional staff required for vacation/holiday/sick time coverage.

(See bottom of page for correct answer)

Practice Question #3

Full time equivalent is a term which describes

a. number of hours for full staff coverage of a unit.

b. total hours required to have one staff member coverage for a full year.

c. total hours required for vacation/holiday/sick time coverage.

d. number of staff required to provide safe nursing practice.

(See bottom of page for correct answer)

Feedback

Practice Question #2

Answer: 11.5%

12 Vacation days	x 8 hours/day	=	96 hours
8 Holidays	x 8 hours/day	=	64 hours
10 Sick days	x 8 hours/day	=	80 hours
			240 hours

1 F.T.E. = 2080 hours/year

240/2080 = 11.5%

Practice Question #3

Answer: "b"

With the data of hours of nursing care required/24 hours, percentage occupancy, and percentage of staff required to provide for relief, you may proceed with calculating total nurse staff needs on a given unit.

For example: The total nurse staffing needs of a 55-bed unit with a daily occupancy of 80% and 5 hours of care/24 hours/patient in a hospital providing 10 vacation days, 8 holidays, and 10 sick days per year is:

Step 1: Daily occupancy data - 44 beds

80% of 55 = 44

Step 2: Calculate percentage of staff required to cover vacation/holiday/sick time

10 vacation days x 8 hours/day = 80 hours

8 holidays x 8 hours/day = 64 hours

10 sick days x 8 hours/day = 80 hours

224 hours

1 F.T.E. = 2080 hours

224/2080 = 10.8%

Step 3: Determine number of staff needed

44 patients x 5 hours of care/patient = 220 hours of care/24 hours

each nurse = 8 hours

220/8 = 27.5 staff for 24- hour coverage

Step 4: Account for extra staff needed for vacation/holiday/sick time

10.8% of 27.5 = 2.97 additional staff

27.5 + 2.97 = 30.47
(Round off after second decimal point)

Conclusion: 30.47 total staff are required to provide a 55-bed unit with 80% occupancy to administer 5 hours of patient care/24 hours in a hospital providing 10 vacation days, 8 holidays and 10 sick days per year.

Practice Question #4

Determine the nurse staff needs for a 37-bed unit with 80% occupancy which provides 6 hours of care/patient/24 hours and allows 8 vacation days, 8 holidays and 6 sick days per year.

(Turn the page for the correct answer)

Feedback Practice Question #4

Step 1: Daily occupancy = 80% of 37 = 29.6

Step 2: Staff required for relief

8 vacation days x 8 hours = 64 hours

8 holidays x 8 hours = 64 hours

6 sick days x 8 hours = 48 hours

176 hours

1 F.T.E. = 2080

176 = 8.5%

Step 3: Staff needed = 29.6 x 6 = 177.6/8 = 22.2

Step 4: Total staff including relief = 8.5% of 22.2 = 1.89

22.2 + 1.89 = 24.09

Conclusion: 24.09 nursing staff are needed for a 37-bed unit with 80% occupancy in order to provide 6 hours of care/patient/24 hours and allow 8 vacation days, 8 holidays and 6 sick days per nurse per year.

Now you are ready to put your knowledge to practical use. Complete the following practice question. You are ready to surprise (and impress) your Director with your justification of nursing staff need. Try it.

Practice Question #5

The following data relates to your 60-bed medical unit. Determine the total staffing needs utilizing this data:

1. Occupancy = 90%
2. Hours of care/patient/24 hours = 5.5
3. 10 vacation days, 6 holidays, 10 sick days per year

Feedback

Now you are "putting it all together"!!

1. Daily occupancy = 90% of 60 = 54 beds

2. Additional relief staff percentage:

   10 vacation x 8 hours = 80 hours
   6 holidays x 8 hours = 48 hours
   10 sick days x 8 hours = 80 hours
   208 hours

   208/2080 = 10%

3. Staff needed:

   54 patients x 5.5 hours care = 297 total hours/24 hours

   each nurse = 8 hours

   297/8 = 37.12

4. Plus additional relief staff

   10% of 37.12 = 3.71
   +37.12

   Conclusion = 40.83

If our administration expects us to provide each of our patients on our 60-bed unit with 5.5 hours of direct nursing care we need 40.83 nurses, providing our benefits remain as they are now.

PLEASE TAKE THE POST-TEST AND SCORE IT.

POST-TEST

Determine the nurse staffing needs given the following data:

Capacity = 50 beds

Occupancy = 90%

Hours of nursing care/patient/24 hours = 5

Staff benefits:

12 vacation days)

10 holidays) per year

12 sick days)

(Turn the page for the correct answer)

Feedback Post-test

1. Occupancy data = 90% of 50 beds = 45

2. Relief staff needs:

   12 vacation days x 8 hours = 96 hours

   10 holidays x 8 hours = 80 hours

   12 sick days x 8 hours = 96 hours

   272 hours

   272/2080 = 13.07%

3. Staff Needs:

   45 patients x 5 hours care/24 hours = 225

   225/8 = 28.13

4. Plus additional staff for relief = 13.07% of 28.13 = 3.68

   28.13
   + 3.68

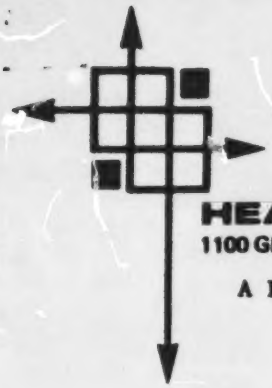
   31.81

Conclusion: 31.81 nurses are needed to provide 5 hours of patient care/24 hours on a 50-bed unit with 90% occupancy in a hospital which provides 12 vacation days, 10 holidays and 12 sick days per year.

Did you get the correct answer? If you did - CONGRATULATIONS!

Now, go ahead and determine the staffing needs of your unit.

If you haven't yet caught on to the mechanics of determining staffing needs, repear the module working carefully. The outcome learning is worth another one-half hour!



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JOB RELATED TRAINING PROGRAM

(CROSS TRAINING)

by

Helen Misko

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TITLE OF PACKAGE:	Job Related Training Program (Cross Training)
AUTHOR:	Helen Misko
INSTITUTION:	Maryvale Samaritan Hospital, Phoenix, Ariz.
INTENDED STUDENTS:	Department heads, supervisors, coordinators, charge nurses
ESTIMATED WORKING TIME:	30 Minutes
MATERIALS NEEDED:	None

FIELD TEST COPY

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INTRODUCTION

A job related training program - or cross training, as it is often called - can make a significant contribution to the overall efficiency of your department, as well as increase the efficiency of the individual members of your staff.

On the next page you will find a training Timetable. You will find it a very useful took in establishing a job related/cross training program.

You may become frustrated and discouraged when you first start establishing your training program, but don't despair. By the time you have completed this package, you'll probably find it will have helped you look at the efficiency of your department in a totally new perspective.

TRAINING TIMETABLE

MAJOR DEPARTMENTAL FUNCTIONS														
EMPLOYEES:														

2

21

22

OBJECTIVES OF UNIT

Overall Objective

You will set up a related job training (cross training) program in your department.

Sub-Objectives

List your individual employees.

List major functions of department.

Use symbols to denote individual employees' ability to specific functions.

Complete a training timetable.

Assess training priorities for individuals within your department.

PRACTICE EXERCISE #1

Input

The training timetable in your package is for you to fill in:

1. Employees
2. Functions

First the employees.

Individual department employees should include full-time, part-time, and float help. All contribute to the overall efficiency of your department. All employees of your department should be listed on your training timetable.

If you use many part-time and/or float employees, you may want to put a (P) or (F) after their name.

P = Part-time

F = Float help

Practice Question #1

A. List all the individual employees in your department in the left hand column of the training timetable. Use as many timetable sheets as necessary.

B. If you have some part-time help, what letter do you put after their name(s)? _____

C. If you have some floater help, what letter do you put after their name(s)? _____

PRACTICE EXERCISE #1 (cont.)

Feedback

A. After you have completed your list of employees in the appropriate column of your training timetable, check that your list corresponds with the personnel printout. If you have any problems, check with your Personnel Coordinator.

   Also, if you have part-time and/or floater help, remember to put the appropriate letter after their name(s).

B. After part-time help you put a P.

C. After floater help you put a F.

PRACTICE EXERCISE #2

Input

Now it's time to fill in the "major departmental functions" spaces of your training timetable--those slanted rectangles across the top of the page. You might include, for example, "cooking, sterilizing trays," etc.

Major functions are those jobs that are directly done in your department or those that are performed by other personnel that directly affect your final results (efficiency of your department).

If necessary, horizontally tape another timetable to the original.

Practice Question #2

List the major functions of your department in the slanted rectangles across the top of your training timetable.

Feedback

Check and recheck your major departmental functions; are you sure you have included interrelated functions.

If you have any doubts, please consult with one of your peer group or ask several of your employees to define their functions for you before you go on.

When you are sure you have all of your department's major functions listed, including interrelated functions, turn the page.

PRACTICE EXERCISE #3

Input

Now that you've listed the employees of your department (down the left side of the training timetable) and the major functions of your department (across the top of the training timetable), you're ready to identify and evaluate each of your employees as to major function.

The symbols I've selected are: D, O, and T.

This is how I've defined each:

D Doing the function. The person who is actually fulfilling that particular major function in your department.

O Oriented to function. The person who has the general knowledge necessary to perform that function in case of illness, vacation, etc.

T The trainable individual. This person may be trained to perform a function when the need arises.

PRACTICE EXERCISE #3 (cont.)

Practice Question #3

A. What symbol would you use to indicate an individual who can be trained to fulfill a function when the need arises in your department? ____

B. This person is actually fulfilling a particular major function in your department. What symbol would be used for this person? ____

C. This person has the general knowledge necessary to perform a function in an emergency situation. What symbol would you use to describe that person? ____

PRACTICE EXERCISE #3 (cont.)

Feedback

A. T (Trainable)

B. D (Doing the function)

C. O (Oriented to function)

PRACTICE EXERCISE #4

Input

Since you now know what the symbols D, O and T stand for, you're ready to put your brain power to work. You're now going to cross index the major functions of your department with that of your employees' knowledge and skill.

Practice Question #4

Under each major function of your department (that's the series of slanted rectangles across the top of the training timetable), go down your list of employees and evaluate each employee's skill in a major function by writing in a D, and O, or a T after their name, for each of the major functions you've listed across the top of your time-table.

Remember what the D, O, and T stand for: D denotes and individual who is performing a major function; O a person who can fill-in and perform the function should the need/emergency arise; T a person who can be trained to perform the function.

It will be easier to complete this exercise if you first check the major responsibilities (D) of each employee, and then complete the areas where, when necessary, they could fill in (O). Be careful when filling in (T)'s - you don't want to train employees for jobs that are not related.

PRACTICE EXERCISE #4 (cont.)

Feedback

At this point, your timetable should be complete as to:

1. All your employees
2. Major functions
3. Individual employee functions (D, O, T)

If you now have any doubts about the accuracy of the timetable, stop and recheck your previous steps.

DO NOT PASS GO until you have completed the above steps!

At this point you should feel your project is starting to show real potential, and you should be anxious to go on to the next question.

PRACTICE EXERCISE #5

Input

This exercise is really something of a check on what you've done so far. When you've completed the necessary data on your employees, be sure that there's at least one D symbol for each employee.

Also, all T's should be carefully thought out. You don't want to train employees for jobs not suited to their abilities.

T's should be used in areas where there is only one person performing that particular function.

T's can also be used as employee motivators.

PRACTICE EXERCISE #5 (cont.)

Practice Question #5

A. Do you have at least one D symbol for each of your employees?

Yes ____ No ____

B. Were all the T symbols you put down on your training timetable well thought out?

Yes ____ No ____

C. Do you think it wise to train employees for jobs not suited to their abilities?

Yes ____ No ____

D. Should T's be used (trained) in areas where there is only one person performing that particular function?

Yes ____ No ____

E. Do you think T's can be used as training motivators?

Yes ____ No ____

PRACTICE EXERCISE #5 (cont.)

Feedback

A. Your answer should be yes.

B. Again, your answer should be yes.

C. No. Employees should be trained for jobs that are suited to their individual abilities.

D. Yes. To increase the efficiency of your department.

E. Yes. Nearly everyone wants to learn more, get ahead, and earn more money.

Now that you've completed - and carefully checked - your training timetable, you have a meaningful training table for your department.

Here are just a few examples of how your training table can help you assess - and then meet - the needs of your department:

Training employees where needed
Employee motivator
Requesting new positions
Predict flexibility of your staff
In case of lay-off, at a glance you'll be able to evaluate important positions.

But I'm confident you can think of many additional meaningful ways your training table can be used to increase the overall efficiency of your department, not to mention increasing the efficiency of individual members of your staff.

Be creative in the ways you use your training table. It will be time well spent; both you and your department will profit from it. And may I leave you with this thought: The more efficient your staff, the easier things will be for you as a department head.

POST-TEST

1. Did you list all the employees in your department on the left side of the training timetable? Yes_____ No_____

2. You may have put the letter "P" after the names of some of your employees. What does the letter "P" designate?

_____

3. You may have put the letter "F" after the names of some of your employees. What does the letter "F" designate?

_____

4. Did you list all the major functions of your department across the top of the training timetable? Yes____ No_____

5. Did you include inter-related functions in your listing of major functions of your department? Yes____ No_____

6. What symbol would you use to identify the person actually fulfilling a particular major function in your department? _____

7. This individual can be trained to fill a function when the need arises. What symbol would you use to identify this person? _____

8. What symbol would you use to identify these individuals: They are oriented to function, and possess the general knowledge necessary to perform that function in cases of emergency. _____

9. Have you written a D, and O or a T after the name of every employee in your department that you've listed on the training timebable ?

Yes____ No_____

10. Check the correct statement:

A._____ The should be at least one D after every name on your employee list.

B._____ There doesn't have to be a D after any name on your employee list.

POST-TEST (cont.)

11. Briefly state why you should be careful about putting a "T" after an employees' name. _____

_____

_____

12. "T's" should be used in areas where there is only one person performing that particular function. True ____ False ____

13. Do you think the training table will help you assess your department's training needs? Yes ____ No ____

14. Do you think you can be creative and use your training table to improve the overall efficiency of your department?

Yes ____ No ____

ANSWERS TO POST-TEST

1. If you followed directions, your answer should be yes.
2. Part-time help
3. Floater help
4. Again your answer should be yes, if you followed directions.
5. Yes. Inter-related functions should have been included in your listing of major functions.
6. D (Doing the function)
7. T (Trainable)
8. O (Oriented to function)
9. If you followed directions, your answer, again, should be yes.
10. A. __X__ There should be at least one D after every name on your employee list.
11. You don't want to train employees for jobs that are unrelated.
12. True
13. Hopefully, your answer is yes.
14. Again, hopefully, you answered yes.

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